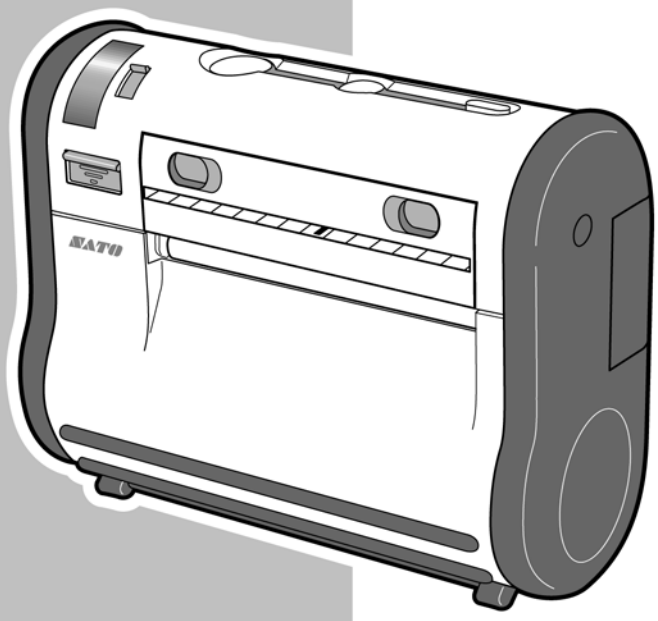
User's Guide

Barcode Printer
MB400

Thank you for your purchase of the SATO MB400 barcode printer. Make sure to read this operation manual and keep it in a handy place.



PN9001114

Introduction

Thank you for your purchase of the SATO MB400 barcode printer.
This manual helps first time users understand the basics of the printer in a short period of time.
To get the most out of the functions of the printer, make sure to read this manual carefully.

Warning!

1. This manual may not be reproduced in whole or in part without prior consent from SATO.
2. The information in this manual is subject to change without notice.
3. Although this manual has been created to be as accurate as possible, contact the shop or the dealer where you purchased this product if you find any errors or mistakes.

Features of MB400

With a compact and lightweight body and high performance, this printer prints barcodes clearly on various types of thermal paper.

Excellent Printing Performance

Not only does this printer print barcodes clearly, but it can also enlarge and print various types of fonts a in a free layout.

Durable and Easy to Use

This printer is also superb in durability, as it has been designed specifically for printing barcodes. Also, special consideration has been taken so that the printer can be easily cleaned daily.

Dispenser Function

As a portable printer, this printer can easily print and dispense labels to allow the application of labels at site..

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Safety Precautions

In this section, safety precautions about printer operation are explained to ensure proper care and usage. Make sure to read these carefully before using your printer.

Markings and Symbols

The following symbols or markings are used in this user's guide and on the printer so that you can properly use the printer, and to prevent any damage to property, harm or injury to yourself and others. Make sure to read their explanations carefully to familiarize yourself with their meanings.

	Warning	This symbol indicates information that, if ignored or applied incorrectly, creates the danger of death or serious personal injury.
	Caution	This symbol indicates information that, if ignored or applied incorrectly, creates the possibility of personal injury or property damage.

Symbol example

	The triangle (△) indicates something you should take absolute care when doing. The cautions are indicated concretely within the symbol.
	A diagonal line within a circle (⃠) indicates something you should not do.
	A black circle (●) indicates something you need to do.

Safety Precautions

Warning	
	Liquids Do not place any containers with water or chemicals, such as flower vases or cups, as well as small metallic objects near the printer. Continued use creates the danger of fire or electrical shock. * If any of these should fall into the printer, immediately turn off the power and contact your nearest dealer or service center.
	Foreign Matter Do not drop or insert metallic or flammable objects into the openings on the printer (such as outlets for cables). Continued use creates the danger of fire or electrical shock. * If any of these should fall into the printer, immediately turn off the power and contact your nearest dealer or service center.
	Dropping and Damage Do not use if the product has been dropped or damaged. Continued use creates the danger of fire and electrical shock. * Should the printer ever fall or otherwise become damaged, immediately turn off the power and contact your nearest dealer or service center.
	Abnormal Conditions Do not use the printer if it is emitting smoke or strange odors. Continued use creates the danger of fire and electrical shock. * Immediately turn off the power and contact your nearest dealer or service center for repairs. Do not try to service the printer by yourself.

Warning	
	Disassembly Never try to take the unit apart or modify it in any way. Doing so creates the danger of fire or electrical shock. * Contact your nearest dealer or Customer Service Center for checkups, tuning and repairs. * For checkups, tuning and repairs, contact your nearest dealer or Customer Service Center.
	Battery Pack Never try to take apart the battery pack or modify it in any way such as with a solder. Doing so creates the danger of heating, fire or explosion.
	Never expose the battery to direct flame, throw it into fire, or take any actions that may lead to shorting. Doing so creates the danger of heating, fire or explosion.
	Never charge the battery pack with any other battery charger except for the specified one. Doing so creates the danger of heating, fire or explosion..

Safety Precautions

Warning	
	AC Adapter / Battery Charger (Optional) Use only the specified voltage. Using a different voltage may create the danger of fire or electrical shock.
	Never use the battery charger with any other battery pack except for the specified one. Doing so creates the danger of fire and electrical shock.
	Never cut or damage the power cord. Also, never place heavy objects on, set fire to or pull the power cord. Doing so creates the danger of fire and electrical shock.
	Never use a damaged cord. Doing so creates the danger of fire and electrical shock. * Contact your nearest dealer or service center.
	Never modify, excessively bend, twist, or pull the power cord. Doing so creates the danger of fire or electrical shock.

Warning

Location

Do not locate the printer in areas subjected to high humidity or dew.
Doing so creates the danger of electrical shock.

* If dew forms inside the printer, immediately turn off the power and do not use it until it has dried up.

Power

Never operate the power switch, replace the battery pack or unplug the AC adapter or battery charger with wet hands.
Doing so creates the danger of electrical shock.

Thermal Head

The thermal head becomes very hot after printing. Make sure not touch it with bare hands.
Doing so creates the danger of injury, burns and electrical shock.

* Take care when replacing labels after printed and when cleaning to avoid burn.

Do not touch the edge of the thermal head with bare hands.
Doing so may cause injury.

* Take care when replacing labels or cleaning to avoid injury.

Do not try to replace the thermal head by yourself.
Doing so creates the danger of injury, burns or electric shock.

Safety Precautions

Warning	
	Easy Cutter This part contains a blade. Do not touch with your bare hands, as this may lead to injury.
	Replacing the Battery Pack Use only the specified battery pack.
	When replacing the battery pack, make sure to install the pack with the poles (+) and (–) facing the correct direction. Incorrectly replacing the battery can rupture the battery and create injury and damage to surrounding areas due to leakage.
	When disposing of old battery packs, make sure to contact your nearest dealer or service center.
	Not using the printer for a long time Remove the battery pack from the printer and unplug the AC adapter from the wall outlet.
	Maintenance and Cleaning For safety during maintenance and cleaning, make sure to remove the battery pack and the AC adapter from the printer.

Precautions in Use

Do not place the printer in hot or cold places.
The operation temperature range is within 0°C to 50°C.
Do not place it in areas with himidity or temperature out of the operation range.

Do not place the printer in locations exposed to direct sunlight or places of high temperatures.
Especially on the dashboard inside a car during summer periods, as it can get very hot.

Use only the specified cable to connect to the external input terminal.
When connecting external equipment via the external input terminal, make sure to use the specified cable for connection. If you have any questions, consult with your nearest dealer or service center.

Make sure to use the specified optional equipment.
Using other equipment besides the ones specified may create damage.

Make sure to use the specified labels.
Using other types of labels besides the ones specified may cause the print head failure or faulty printing.

Unpacking

After opening the box, make sure that all the printer's accessories are included. If there are any accessories missing, contact your nearest dealer or service center.

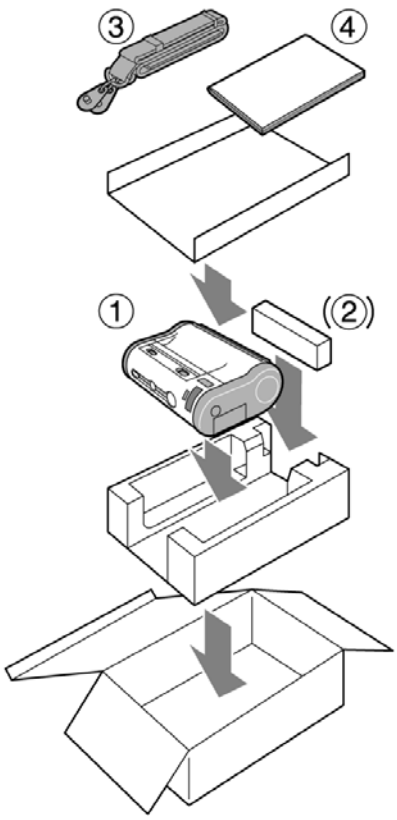
1 Printer

2 Battery pack (standard or optional)

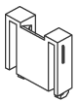
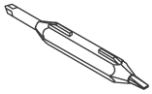
3 Shoulder belt

4 User's guide

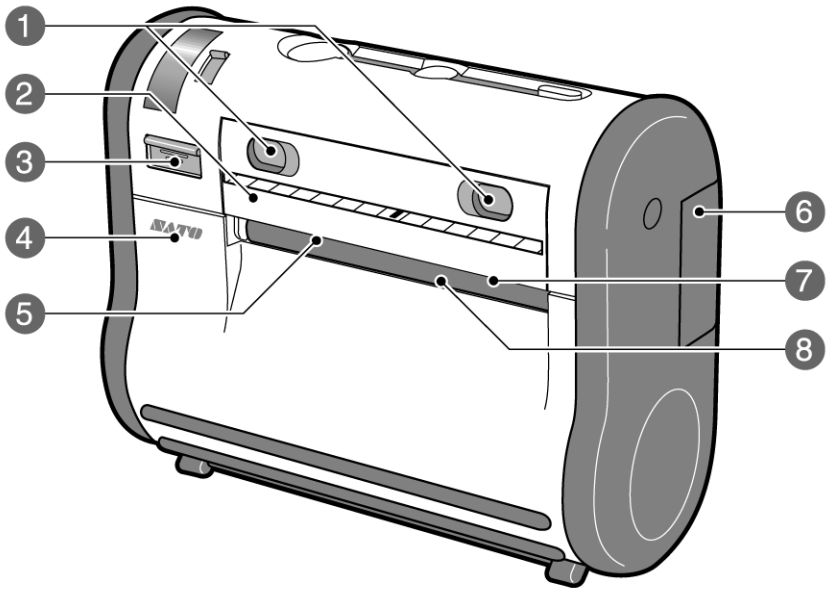
* The shape of the protector pads to hold the printer in place may differ from the picture shown.



Other accessories

 **Cable lock** Attached to the interface connector.	 **Adjustment screwdriver** Located inside the printer (under the label feed area).

Part Names



(1) Dispense/Continuous switch lever
Switches the print mode (dispense/ continuous).

(2) Dispenser unit
Move this when the Dispense mode is selected.

(3) Front cover Open/Close lever
Opens and closes the front cover.

(4) Front cover
Open this for setting labels.

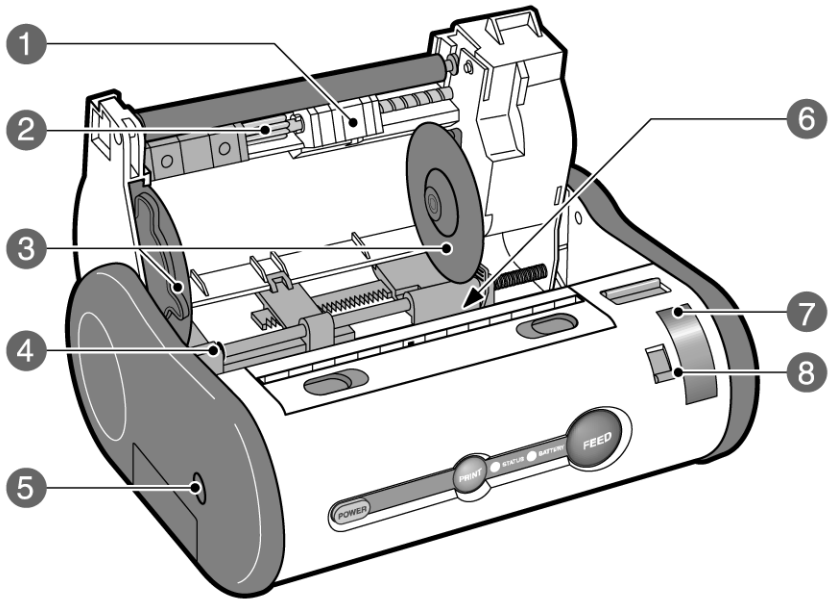
(5) Easy cutter
Cuts printed labels.

(6) Battery cover
The battery pack is inserted here.

(7) Label ejection
The printed label comes out from here.
* Varies depending on the print mode. (Refer to pages 20 - 24)

(8) Platen roller.

Part Names



(1) Label sensor
Adjust this to the label size being used.

(2) Label sensor adjustment dial
Use this dial to adjust the location of the label sensor.

(3) Label guide
Adjust this to the label size being used.

(4) O ring
Use this when fixing the position of the label guide.

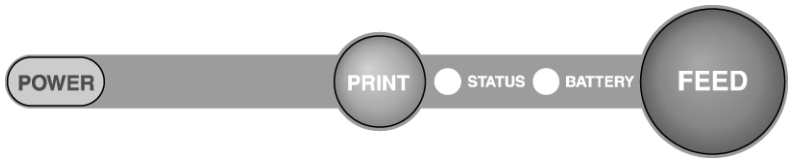
(5) Shoulder belt hook
Attaches the shoulder belt when hanging the printer on shoulder.

(6) Adjustment screwdriver
(supplied accessory)

(7) IrDA filter
The IrDA receiving element is located inside.

(8) IrDA adjustment lever
Changes the angle of the IrDA receiving element.

Operation part names



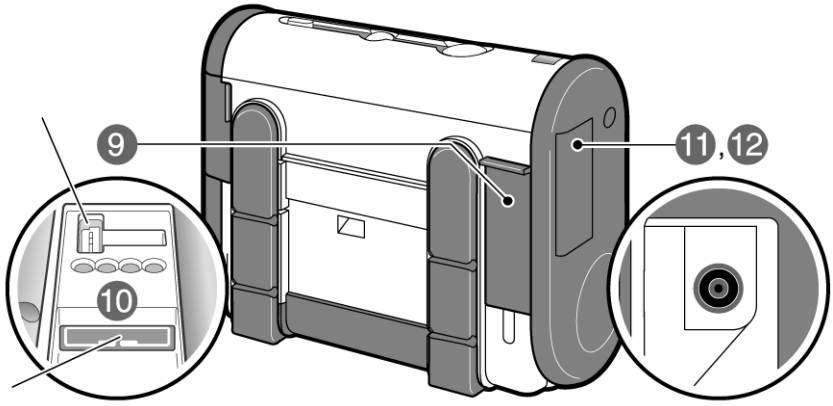
POWER key
Turns the power on and off.

PRINT key
Sets the printer to on-line or off-line.

FEED key
Feeds labels.

STATUS LED indicator
Indicates the status of the printer. (Refer to pages 28, 29, 36 and 37)

BATTERY LED indicator
Indicates the status of the battery. (Refer to pages 19, 36 and 37)



(9) Interface cover
Covers the interface connector. (The cable lock is included.)

(10)Interface connector (RS-232C)
Connects to a computer.

(11)DC input jack cover
Covers the DC input jack when not in use.

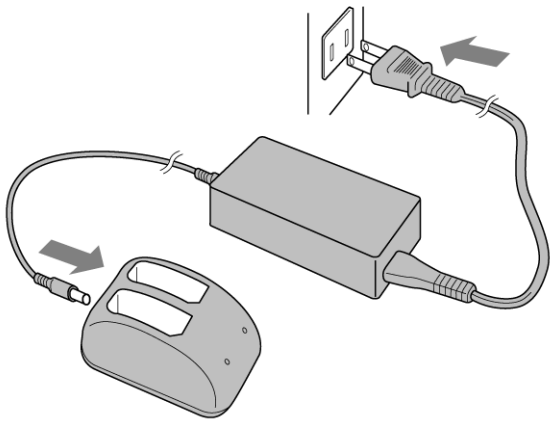
(12)DC input jack
Connects the AC adapter.

Before Starting

Charging the Battery Pack

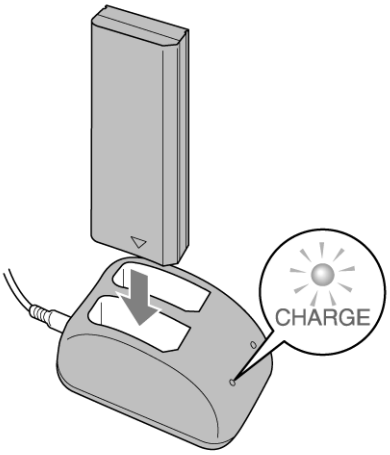
You can recharge the battery pack by inserting it into the battery charger (optional).

(1) Plug one end of the AC adapter into the battery charger and the other end into the wall outlet.



(2) Insert the battery pack. Make sure the connector on the battery pack is facing down and insert it into the charger.

- The CHARGE indicator lights in red when charging starts.
- The CHARGE indicator lights in green when charging is complete (Fully charged).



(3) When charging is complete, remove the battery pack from the charger.

Notice

- If the CHARGE indicator on the charger does not light up, make sure that the battery pack is firmly attached to the charger. The battery may not charge, if not firmly attached.
- If an already charged battery pack is inserted into the charger, the CHARGE indicator will turn red once (charging), however it will soon change to green (fully charged).
- If charging a battery pack that has not been used for a long period, the CHARGE indicator will flash for a while. This does not indicate an error, and you can continue charging as it is. If the indicator continues to flash for a long time while charging, replace the battery pack with a new one.
- The battery pack can be charged up to 300 times (during use in regular temperatures). If the battery pack is fully charged but soon runs out, replace the battery pack with a new one.

* Write down the date of purchase of the battery with a marker on the sticker attached to battery pack as a guideline of the number of times the battery can be recharged (the life of the battery). (For example: Date of purchase: Sep. 1st, 2000.)

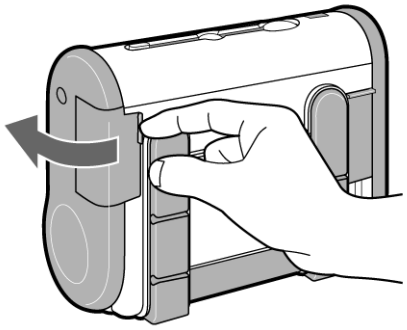
- The battery pack cannot be used when using the AC adapter. If the AC adapter jack is plugged into the printer when using the battery, the power will be reset. (If there is any remaining print data, it will be lost.)

Charging time
The charge time for one battery pack from empty until fully charged is about 90 minutes. For two battery packs, it takes about 130 minutes. (The charging time varies depending on the environment.).

Before Starting

Installing and Removing the Battery Pack

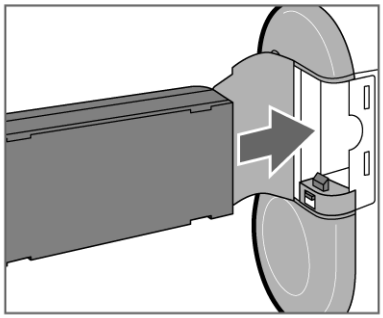
(1) Place your finger on the battery cover ribbed area, and open the battery cover in the direction of the arrow.



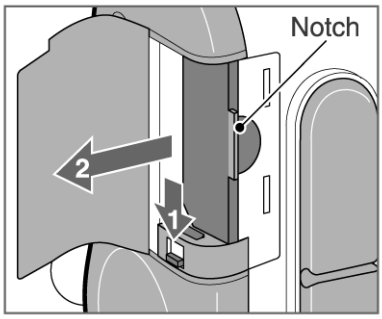
(2) Insert the battery pack.

Insert the battery pack with the connector facing towards the end.

* Insert the battery all the way in until the lock clicks into place.



(3) To remove the battery pack, press down the lock lever and release the lock. Then pull the battery pack out placing your finger into the notch. Notch.



Take care not to drop the battery pack when removing it. The battery pack may be damaged if it is dropped.

Battery Status

1. **Battery near end**
   When the battery is getting low, the battery near end is detected and the BATTERY LED indicator lights up in orange. The keys can still be operated, however the battery should be recharged.
2. **Low Battery Error**
   When the battery gets empty, a low battery error is detected and the BATTERY LED indicator lights up in red. The keys cannot be operated, and after 30 seconds the power automatically turns off. Make sure to recharge the battery.

Status	BATTERY LED indicator
Battery near end	Light (orange)
Low battery error	Light (red)

The BATTERY LED indicator does not light up during printing or an error, even if battery near end or low battery error has been detected.

Caution!

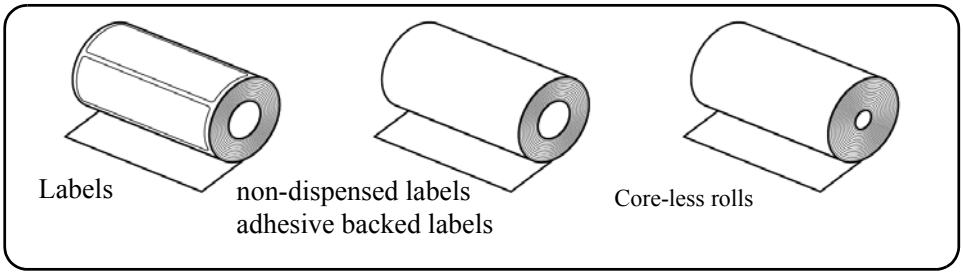
- **Make sure to turn the power off before removing or replacing the battery pack.**
- **If you do not plan to use the printer for long period of time, make sure to remove the battery pack.**
  If not removed, the battery may get over-discharged and may not be recharged.
- **Do not store the battery in places of high temperature.**

Before Starting

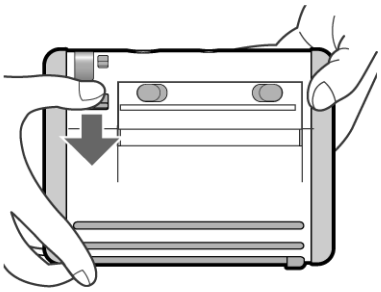
Loading Labels

... The method of loading the labels may vary depending on the print mode.

[Continuous Mode]

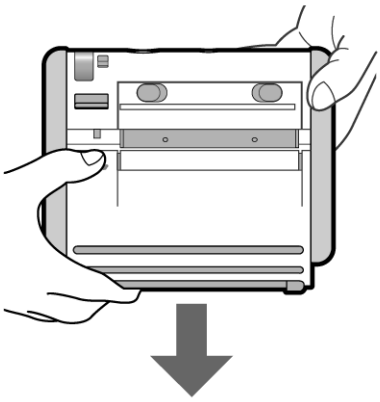


(1) Press the cover Open/Close lever in the direction of the arrow to release the front cover lock.

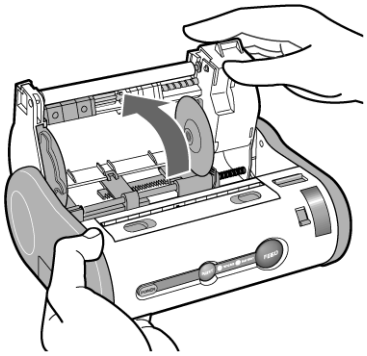


(2) Slide the front cover to open.

Hold the front cover and slide it in the direction of the arrow until it stops.

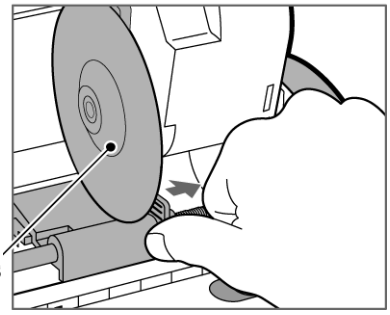


(3) Open the front cover in the direction of the arrow.



(4) Insert the label roll on the label guide boss inside the front cover.

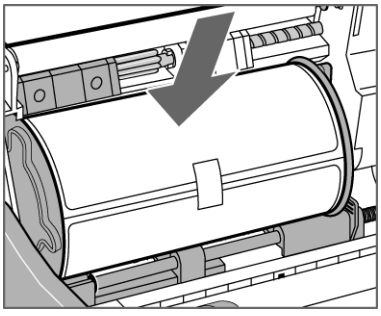
- Press the tab for adjusting the label guide (right), and adjust the guide to the width of the labels to be used.



Label guide boss

- Firmly insert the label roll on the bosses on the left and right of the label guide.

* Move the label roll to make sure that it is firmly set on the bosses.



(Continued to page 22)

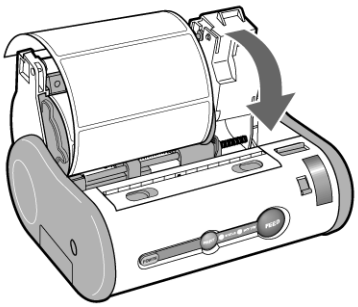
Before Starting

Loading Labels

... The method of loading the labels may vary depending on the print mode.

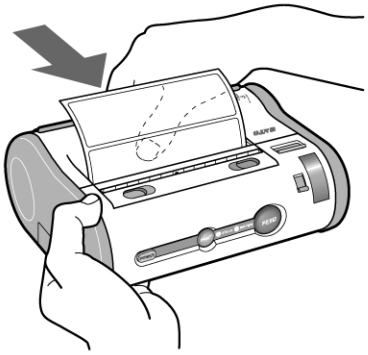
[Continuous Mode] (Continued from page 21)

(5) After peeling the lead tape on the roll, take the leading edge of the first label on the roll and pull it out via the platen roller. Then turn the front cover in the direction of the arrow.



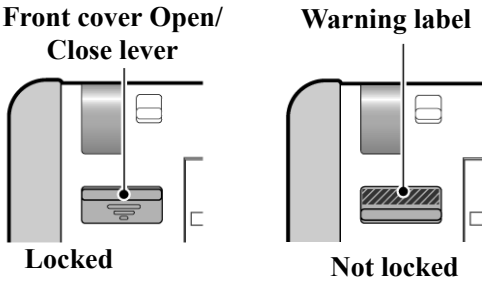
(6) Close the front cover in the direction of the arrow.

* Press the front cover until the cover Open/Close lever clicks.



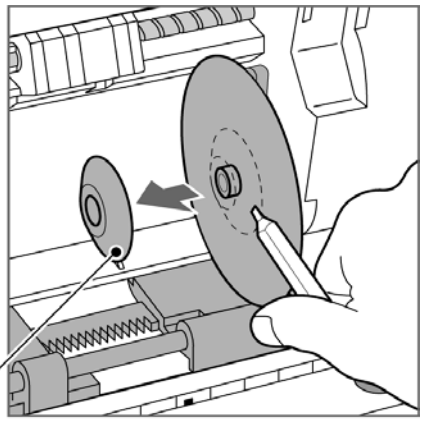
If the cover is not properly locked, the warning label in the front cover Open/Close lever can be seen.

* Never print with the cover not properly locked.



Core-less rolls

After removing both of the label guide bosses on the sides with the driver (attached accessory), set the roll by following the directions 4, 5 and 6 on page 21 to 22.



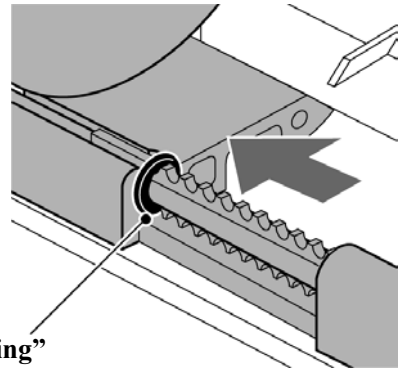
Setting the Label Guide Boss

If the width of the label is fixed, the boss can be fixed.

- After setting the roll on the label guide, fix it in place by sliding the "O-ring" on the bottom left to the edge of the label guide.

* Setting labels will be easier when the label guide is fixed.

* When using core-less paper, the label guide must be always fixed.



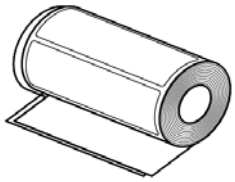
Above are the steps for setting the papers during the Continuous mode.

Before Starting

Loading Labels

... The method of loading the label may vary depending on the print mode.

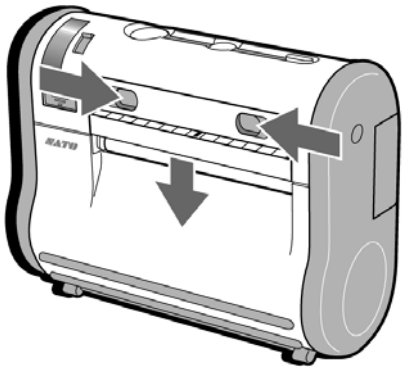
[Dispense Mode]



Labels

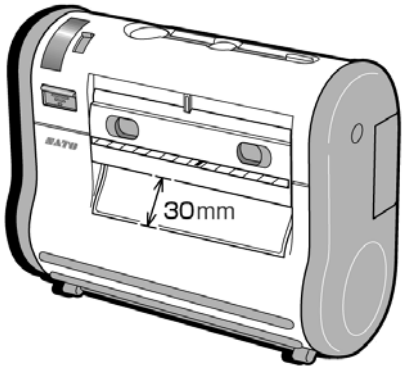
First perform the procedure steps 1 through 6 on pages 22 and 23 (Continuous mode).

- **Pick the Dispense/Continuous switch lever from both sides, and slide the Dispenser unit to the direction of the arrow.**



* Leave more than 30mm of the label out for the Dispense mode.

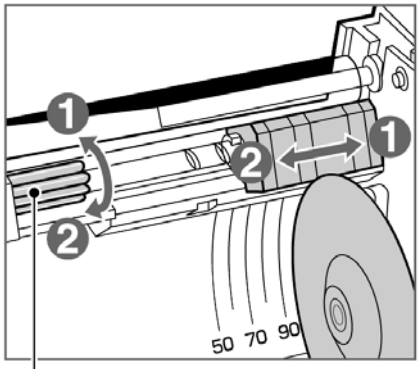
* Slide the Dispenser unit until it is set in place.



Adjusting the Position of the Label Sensor

(1) Moving the Label Sensor to the <u>Right</u>
Turn the Label Sensor Adjustment Dial up.

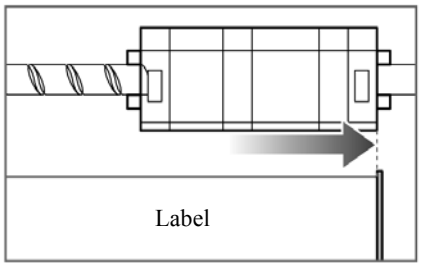
(2) Moving the label Sensor to the Left
Turn the Label Sensor Adjustment Dial down.



The Label Sensor Adjustment Dial

Using the Sensor

Align the right edge of the sensor with the right edge of the label.



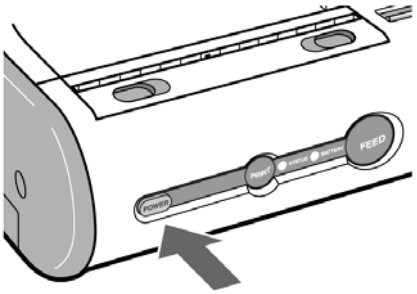
Turning on the Power

After preparations, turn on the power.

- **Press the POWER Key**

The STATUS LED indicator lights up in green.

* Press the power key again to turn the power off. The STATUS LED indicator goes out and the power turns off.

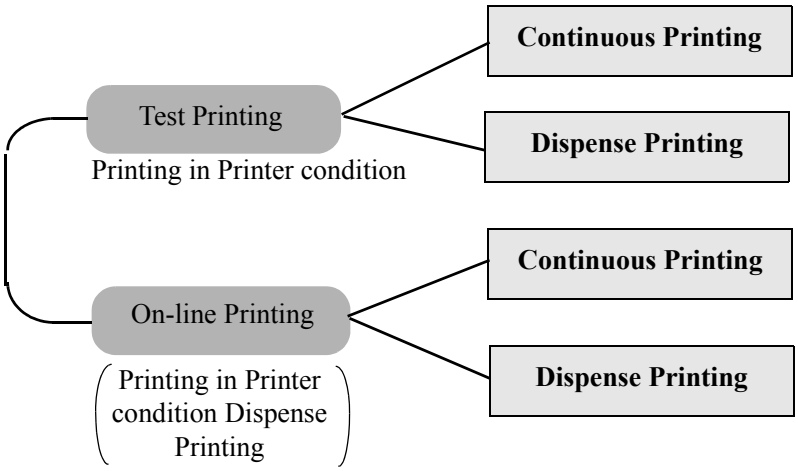


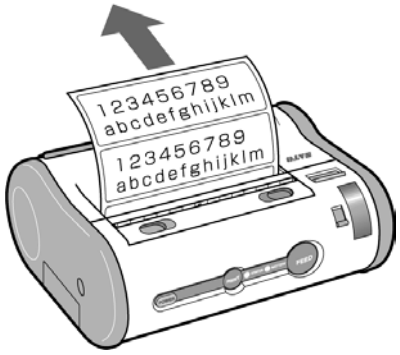
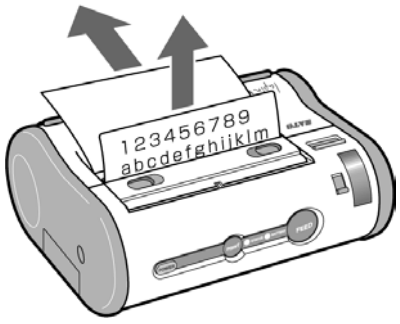
Caution!

- **Make sure you turn off the power before taking out or changing the battery pack.**
  The STATUS LED indicator lights up in green when the power is turned off. While this light is on, do not remove the battery pack. Always make sure the STATUS LED indicator is off before taking out the battery pack.
- **If the battery pack is removed after the power is turned off, but with the STATUS LED indicator still lit up in green, the printer may not refresh the data in memory**

Starting the Printer

There are two modes for printing: the Continuous mode and the Dispense mode. Test printing and On-line printing can be done on both modes.

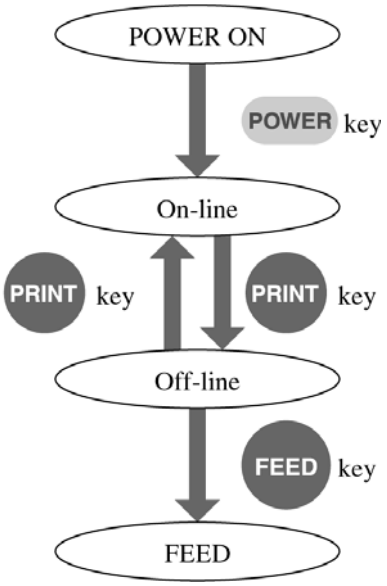


Continuous Printing	Dispense Printing
	

Starting the Printer

Procedures for On-line Operation

Normal Printing Mode



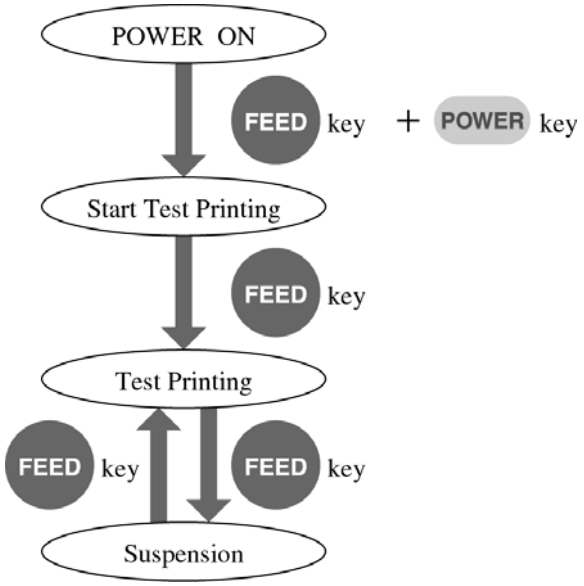
The STATUS LED indicator during the Normal Printing mode is as shown on the table below.

Action	Status (LED)
Normal Printing Mode	On (Green)
On-line	On (Green)
Off-line	Off

Power Save Mode

1. **Sleep Mode**
   The printer will go into the Sleep mode if not performed any operation for 5 seconds. Pressing the PRINT key or the FEED key, or receiving data will resume normal status.

Test Printing Mode (FEED key + POWER ON)



The STATUS LED indicator during the Test Printing mode is as shown on the table below.

Action	Status (LED)
Starting Test Print Mode	ON (Red/Green)
Test Print Mode ON	On (Green)
Test Print Mode (printing)	On (Green)
Suspension	Off

2. Auto Power Off Mode
The printer will go into the Auto Power Off Mode if not operated for 5 minutes. Be careful as the printing data, if any, will not be saved.

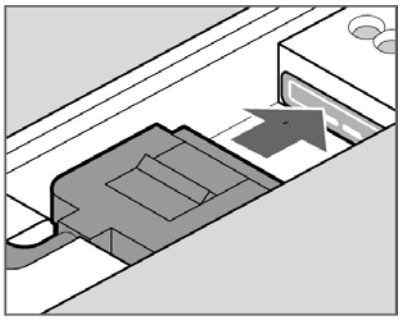
Starting the Printer

On-line Operation

Open the interface cover, and proceed by the following directions.

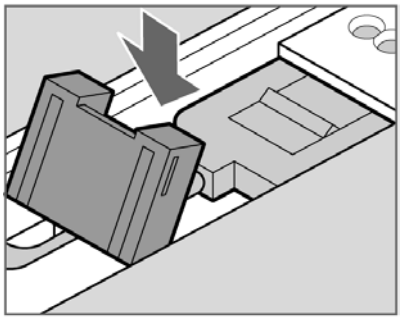
(1) Plug in the interface cable as shown.

- Only use the specified cables.



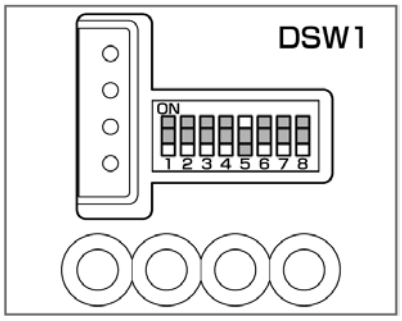
(2) Put on the cable lock to prevent the plug from falling out.

- Push the protrusion of the cable lock into the hole indicated.



(3) Check the DIP switch setting (for transmission conditions).

* The setup should be done with the screw driver (attached accessory).



Setting up the DIP switch

<table>
<tr><th>Switch No.</th><th>Function</th><th>Initial Factory Default Setting</th></tr>
<tr><td>1-1

1-2

1-3</td><td>Interface setup
<table>
<tr><th>1-1</th><th>1-2</th><th>1-3</th><th>Action</th></tr>
<tr><td>OFF</td><td>OFF</td><td>OFF</td><td>RS-232C</td></tr>
<tr><td>ON</td><td>OFF</td><td>OFF</td><td>TTL</td></tr>
<tr><td>OFF</td><td>ON</td><td>OFF</td><td>IrDA transmission</td></tr>
<tr><td>ON</td><td>ON</td><td>OFF</td><td>Short range radio transmission (optional)</td></tr>
<tr><td>OFF</td><td>OFF</td><td>ON</td><td>RS-232C, IrDA transmission</td></tr>
<tr><td>ON</td><td>OFF</td><td>ON</td><td>TTL, IrDA transmission</td></tr>
<tr><td>OFF</td><td>ON</td><td>ON</td><td>RS-232C, Short range radio transmission(optional)</td></tr>
<tr><td>ON</td><td>ON</td><td>ON</td><td>TTL, Short range radio transmission(optional)</td></tr>
</table></td><td>DSW1-1
OFF

DSW1-2
OFF

DSW1-3
OFF</td></tr>
<tr><td>1-4</td><td>The automatic feed function
OFF : Press FEED key
ON : After closing the cover, the automatic feed function starts.</td><td>DSW1-4
OFF</td></tr>
<tr><td>1-5</td><td>Head Check
OFF : Head check is not in effect.
ON : Head check is in effect.</td><td>DSW1-5
ON</td></tr>
<tr><td>1-6</td><td>Unavailable for use</td><td>DSW1-6
OFF</td></tr>
<tr><td>1-7</td><td>Unavailable for use</td><td>DSW1-7
OFF</td></tr>
<tr><td>1-8</td><td>Unavailable for use</td><td>DSW1-8
OFF</td></tr>
</table>

Make sure the power is turned off before setting up the DIP switch.

• Unless directed otherwise, do not change the setup.

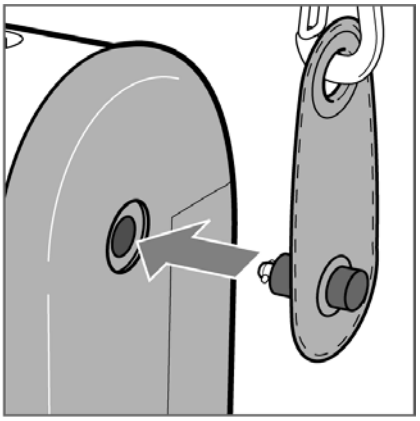
Starting the Printer

Using the Shoulder Belt

Use the shoulder belt to leave both of your hands free when using the printer while moving. Follow the directions below.

Attaching the Shoulder Belt

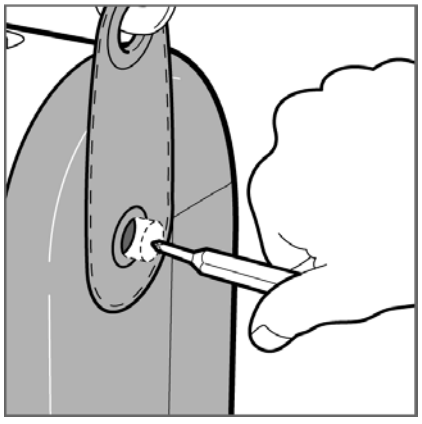
(1) Fasten the pin onto the hook as indicated.



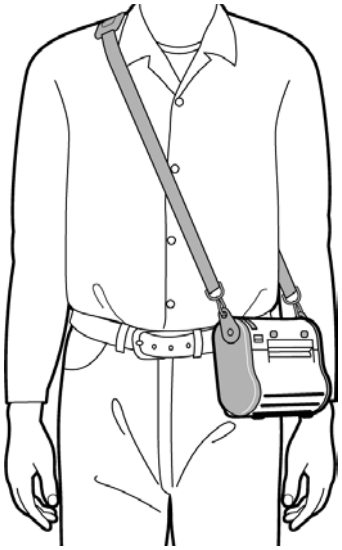
(2) Using the screwdriver (accessory), push in the head of the pin and lock it in place.

(3) Pull the shoulder belt gently and make sure the belt is secured onto the printer.

* Press the head of the pin to remove the belt.

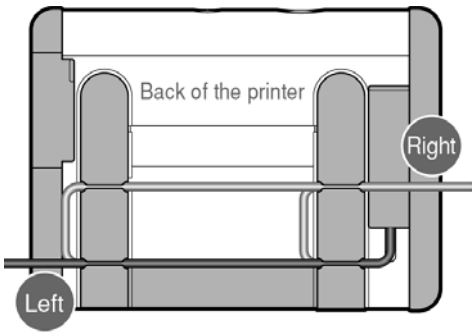


Example of using the shoulder belt



Wiring the Interface Cable

An indentation is provided at the foot of the printer for the interface cable. Using this prevents the jack from falling out of the plug or damaging the cords, and keeps the cable in place. Wire the cable as shown, in relevance to the shoulder, which the printer is hung on.

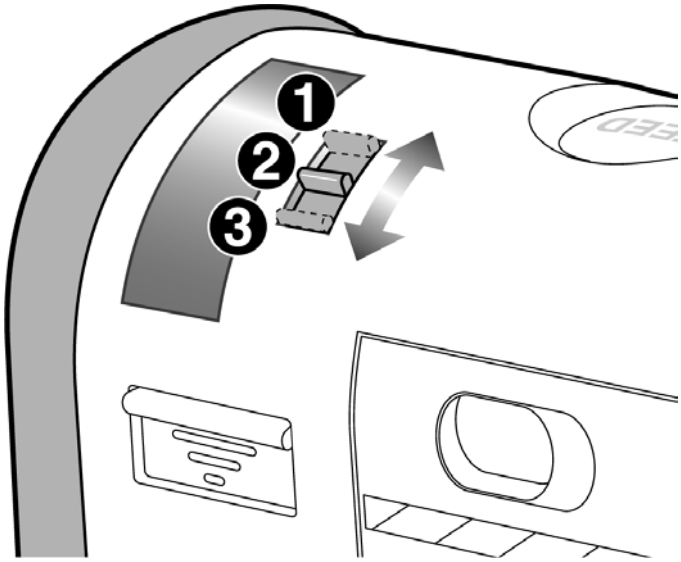


Starting the Printer

IrDA adjustment Lever

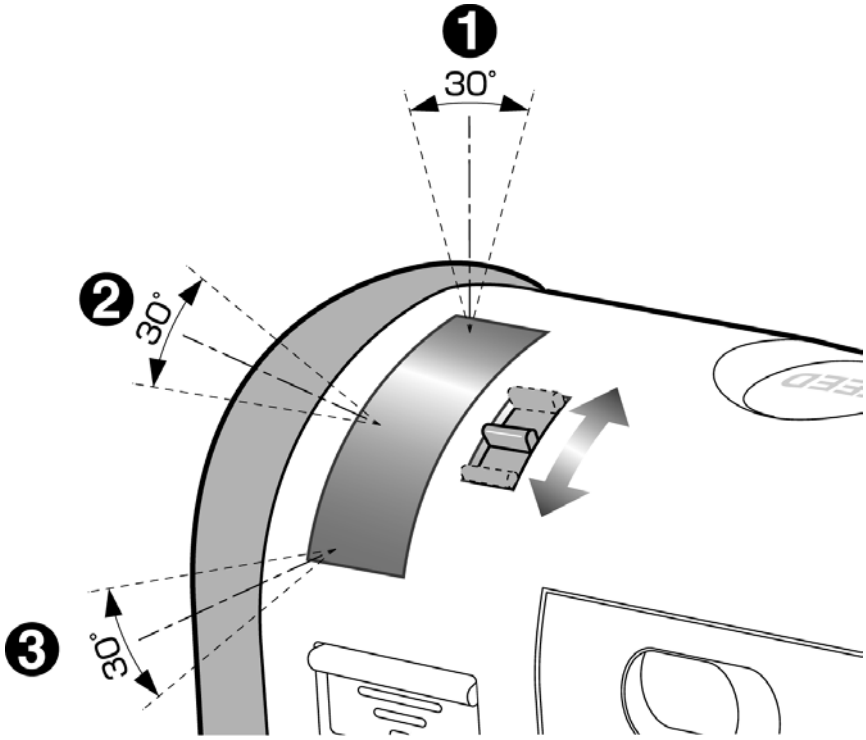
By adjusting the angle of the lever, the angle of the IrDA receiving element can be changed.

- **Use the rib of the IrDA adjustment lever to adjust the angle.**



*** Check the angle by where the IrDA adjustment lever is facing.**

IrDA transmission Range



The IrDA allowable distance is 10 to 20 cm.

* Varies from the environment where printer is used. Under direct sunlight or strong lighting, it may not be possible to make IrDA transmittal. Should this happen, cover the IrDA filter to interrupt the light, or bring the IrDA filters to contact together.

Trouble Shooting

The status of the printer is indicated on the STATUS LED indicator. Abnormalities of the status is indicated as below. To solve the problems, follow the directions in the table.

STATUS (LED)	Mode	Details	
Red	After power input	1 Program error 2 FLASH ROM error	→
Red (blinking)	On-line	Open cover	→
		Paper end	→
		Sensor error	→
Red / orange (blinking)	On-line	Buffer over	→
Orange (blinking)	On-line	Head error	→
Orange/ green (blinking)	On-line	Head overheating protection function	→
Green (blinking)	On-line (Printing/ Receiving data)	Buffer near full	→

STATUS (LED)	Mode	Details	
Red (blinking)	All modes	Low battery	→

The power will automatically be turned off 30 seconds after low battery is indicated. Make sure the power is off before removing the battery pack, and recharge the battery.

	Cause	Solution
→	FLASH ROM reading/writing error	1. Replace the flash ROM. 2. Download the program again.
→	1. Cover isn't locked. 2. Cover micro switch is not working properly.	1. Lock the cover. 2. Adjust the micro switch.
→	Out of paper	Load new labels
→	1. Sensor level isn't accurate. 2. Sensor type doesn't match. 3. Label is wandering. 4. Sensor position isn't accurate.	1. Adjust the sensor level. 2. Adjust the sensor type. 3. Reset the labels properly. 4. Adjust the position of the sensor.
→	1. Received data over the buffer quota. 2. The protocol between the printer and host doesn't match.	1. Adjust the data amount at the host side so that it won't exceed the buffering quota. 2. Match the protocol.
→	The head is broken	Replace the head
→	Not an error. The over heating protection function activates when the head temperature rises above 70°C.	The function will deactivate when the head temperature goes down to 60°C.
→	You are approaching the quota on the buffer.	Pause the data transmission and wait till the buffer is empty before trying again.

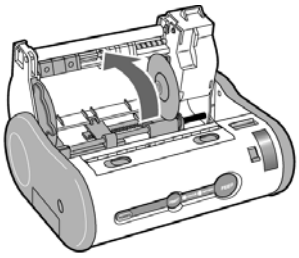
	Cause	Solution
→	Batteries haven't been recharged properly	Recharge the battery.

* Please consult your nearest Customer Service Center or dealer.

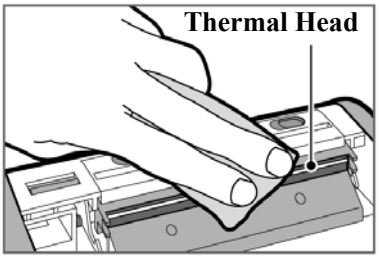
Daily Maintenance

After pressing the POWER key to turn the printer off and removing the battery pack, follow the directions below.

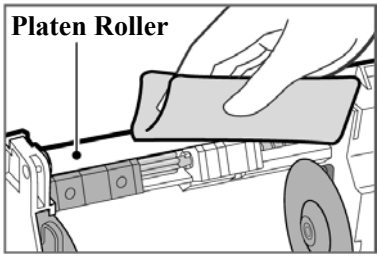
- **Press the Front cover Open/ Close lever and open the front cover.**



Thermal Head
Wipe clean with cloth and alcohol.

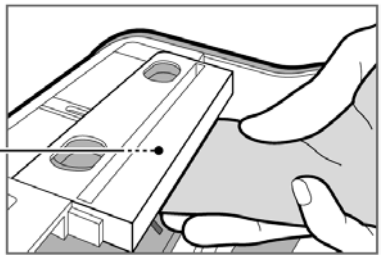


Platen Roller
Wipe clean with cloth and alcohol.



Dispense Roller
Wipe clean with cloth and alcohol.

Dispense Roller (behind the Dispenser unit)



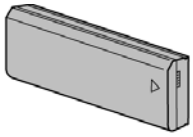
Do not use thinners, benzene, or kerosene.

Reference

Optional Equipment

Battery Pack (Standard or optional)

Used when the printer is carried

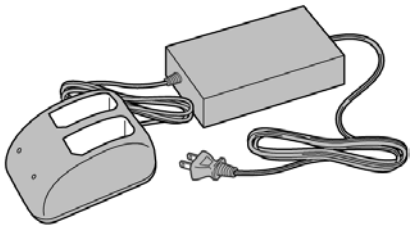


AC Adapter, Battery charger

Read the guide for instructions and precautions.

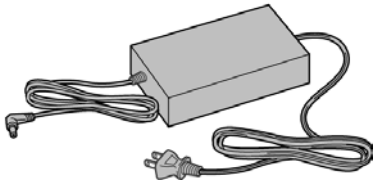
Battery Charger

The battery packs are recharged on this.



AC Adapter for Printer

Use the adapter to supply power from a household electrical outlet (110VAC). Connect the DC output jack of the adapter to the printer.



Caution!

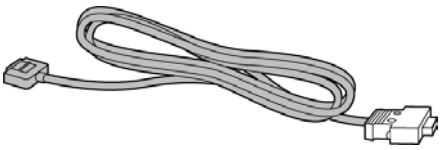
- Always use the specified adapter.
- Before plugging or unplugging the AC adapter, always make sure the printer is turned off.
- Always hold the printer when pulling out or plugging in the jack.
- Be careful not to damage the cords.
- Store away in a safe place if not used.

Reference

Optional Equipment

RS-232C cable

For connection of computers and handheld terminals.



Short range radio unit

For communication with specified handy terminal.

Battery Charger Set

Battery charger enables the recharging of the maximum of 4 batteries at the same time, with one AC adapter.

When ordering repairs

- Always attach to the printer a sample of the defective print and note the functional problem before sending it out when requesting for repairs.
- After repairs have been made, you may be asked to recover the format of the printer by yourself.

Reference

Basic Specifications

Items		Details
Printing System		Thermal
Head Density		8 Heads/mm
Maximum Printing Size Width		104mm × Pitch 297mm
Printing Speed		Max. 50mm/sec. (may vary from environment)
Printing Mode		Continuous, Dispense, and Journal
Size		Printer : W190mm × D 80mm × H 139mm
Weight		Approximately 960g (including battery)
Power (Battery)		Packet type (Lithium ion battery); 1600mAh; Will print 1 roll of journal paper (25m roll) on continuous mode when fully charged (printing rate at 15% or less)
Paper		Always use specified labels
Label Shape		Roll; Maximum outer diameter: 58mm
Label Size		Width: 50- 11mm (53-114mm) Pitch (Continuous): 25-297mm (28-300mm) Pitch (Dispense): 25-182mm (28-185mm) Numbers indicated in ( ) are for pasteboards, non-adhesive or non-separated labels, and journal paper.
Thickness		Continuous: 0.06 – 0.18mm Dispense: 0.18mm (the thickness of the pasteboard is under 0.06mm)
Self Diagnosing Function		Battery Check / Paper end Head Open/ Test Printing / Head Check
Power Save Function		Into the Sleep mode after 5 seconds without any operation, and the Auto power off mode after 5 minutes without any operation.
Interface	RS232C/ TTL	High density special connecter
	Optical Coupler	IrDA (IrDA Standard Ver.1.2 compliant)
	Radio (option)	Short range radio module

Items	Details
Label Sensor	Eye-Mark sensor / Dispense sensor
Font	SATO standard font: × 21, × 22, × 23, Kanji 16 × 16, 24 × 24 Kaku Gothic / Mincho (JIS First/Second standard)
Barcode	JAN8/13, UPC-E/UPC-A, CODABAR, CODE39, INTERLEAVED 2 of 5, CODE 128, CODE 93, Customer Bar Code
Two Dimension Code	PDF 417, QR code
Function Key	POWER key, PRINT key, FEED key
LED	STATUS, BATTERY (Red/ Orange/ Green)
Noise Gauge	Noise radiation: VCCI -B Static withstanding pressure: Level 2
Protection Function	Suspension of action upon detection of low batteries.
Environment Conditions (including battery)	Operation temperature: 0-50°C Humidity: 25-80% (without condensation) Storage Temperature: –10 - 60°C Humidity: 25-80% (without condensation)
Option	AC adapter, Battery charger, Battery pack, RS-232C cable, Short range radio module

Reference

Service

To ensure that our products are used at their best, we provide repair and maintenance services through a network of authorized SATO Service Centers or factory direct. Please contact SATO Technical support via one of the following methods for instructions on returning units for repair.

Email: techsupport@satoamerica.com
Telephone: (704) 644-1660
Fax: (704) 644-1662

Stored Data
The data and softwares entered in the printer may be lost during repair. We recommend making back-up prior to repair. Make sure to check the printer for its data after repair.

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PN9001114